Rorschach institute.

RORSCHACH RESEARCH EXCHANGE

Volume III, No. 1, October 1938

Editor: Bruno Klopfer

Table of Contents

Page

Personality Development in Adolescence..... 2
Nadine Suares, M. D.

Rorschach Reactions under Varied Instructions..... 12
Irving Arthur Fosberg, M. A.

A Further Rorschach Study of Mr. A..... 31
Bruno Klopfer, Ph. D.
Gladys Tallman, M. A.

Rorschach Statistics - Part II: Normal Children..... 37
Helen H. Davidson, M. A., and
Bruno Klopfer, Ph. D.

OHIO STATE
UNIVERSITY

PERSONALITY DEVELOPMENT IN ADOLESCENCE

Nadine Suares, M. D.

(A condensation of a thesis from the
Jean-Jacques Rousseau Institute, Geneva, Switzerland)

Introduction

If we are not mistaken, this study is the first one inspired by the need to check the prognostic value of the Rorschach test.

This test is the only one that penetrates to some extent into the affective capacity, the inner life, the content of thought. In certain favorable cases, the examiner is even able to discover a complex, an obsessive thought, a state of anxiety --most valuable indications for the psychologist.

A nine year old child was brought to the Medico-Pedagogical Consultation because he had violent fits of temper. Each time he was confronted with a Blot the same "idée fixe" emerged through the various interpretations; it was always a creature, either man or beast, devouring another one. Later, we found out that the child was much afraid of his father and that he had witnessed terrific scenes between his parents.

In relation to adolescents the Rorschach test has been studied the least.

For the past two years, with the cooperation of Mme Loosli and Mme Canivet, the Rorschach test was applied to a great number of children coming to the Guidance clinic, to young people of the vocational guidance bureau, to high-school boys. Each time there was a difficult case the same disturbing question arose: to what extent could the result obtained be used, not only for diagnosis but also to prognosticate the personality development.

Mme Loosli and Mlle. Shapiro compiled statistical tables for pre-adolescent boys (in 1929) and girls (in 1932) which proved quite different from those of adults. What happened to the Rorschach of these same children during adolescence? This was the first problem we had to solve.

If, as we thought, the results were to show profound changes, how were we to judge them while there existed as yet no statistical results for adolescents? This was our second problem.

In order to answer the first question we decided to submit the Rorschach test once again to these same children who had already been tested. Only by doing this could we find out whether constants existed and what they were: it also would enable us to make hypotheses concerning their personality development.

Our results were based on:

a) twenty-one boys from 15 to 18 years old chosen from among those that had been tested five years earlier by Mme Loosli;
b) twenty-one girls from 12 to 14 years old chosen from among those that had been tested two years earlier by Mlle Shapiro;
c) twenty-one high-school boys from 14 to 18 years old all of whom were preparing themselves for the University;
d) twenty-one boys from 14 to 18 years of age who had come to the consultation because of school studies or character difficulties (no mental backwardness);
e) as a control we had 14 cases of boys which we shall examine later on.

The results obtained with this large number of boys enabled us to answer the second question.

It is obvious that this survey will only give us fragmentary conclusions in regard to the problems under consideration. More than any other test, the Rorschach, because of the amount of differentiated appreciation which it necessitates, makes collaboration imperative. The goal we set for ourselves has been to contribute to that research work which is still in its infancy but full of promise.

I. Retested Boys

In 1929 Mme Loosli published her statistical results on 63 Geneva primary school boys between the ages of 10 and 13. She had been careful to exclude any foreign child or any retarded child so as to have a homogeneous group of Geneva children, chosen at random from a simple class of people, and all living with their families.

In 1935, five years later, we were lucky enough to be able to re-examine 21 of this group - now 15 to 18 years old. Table A gives the results of the first and second tests for the 21 boys. At first glance Table A appears to be so chaotic that the two examinations seem to have nothing in common. For instance, in the "mental approach" we find that (1) the total number of responses varies greatly between the first and second tests: i.e., No. 17 and No. 18 increase more than twice whereas Nos. 1, 5, 14 decrease to less than half, and that (2) the D's and Dd's show great variation: i.e., the Dd's of No. 3 decrease from 13 to 4, those of No. 13 increase from 8 to 25.

The Erlebnistyp also showed great variation. It was possible to separate our boys into the following five groups:

1) the one in which the Erlebnestyp does not change, as in the case of subject No. 21 whose formula, 1M:0C, remains the same, 1M:0C. We have only three subjects in this group (nos. 11, 18, 21).

2) the one in which the M either does not vary or increases while the ΣC always decreases, as in the case of our subject No. 6 whose formula, 0M:12C, became 1M:1C. Five subjects belong to this group (Nos. 3, 5, 6, 14, 19).

3) one case where M remains the same and C increases (No.17)

4) the one in which we have a complete reversal of the formula, as in the case of subject No. 1 already mentioned. Five of our subjects belong to this group (Nos. 1, 4, 12, 13, 15)

5) finally the most numerous, comprising seven subjects, in which we have a dilation on the introversive side as well as on the extratensive side, as in the case of subject No. 8 whose formula, 5 M:1C, becomes 11M:5C (Nos. 2, 7, 8, 9, 10, 16, 20)

Comparing our results with those of Mme Loosli, we were much interested when we noticed above everything else a definite increase in the movement responses. The median increases from 0 to 1. The median for the Σ C, on the other hand, remains the same.

This increase in introversiveness, which according to results obtained by Mme Loosli seems to be typical of problem children, interested us in analysing further the changes in Erlebnestyp.

If we analyse the effect of the changes in M and Σ C upon the Erlebnestyp our subjects divide themselves into the following groups:

1) three of the five subjects who remain introversive show an increase in M interpretations while the other two have not changed (Nos. 2, 8, 16, and 18, 21).

2) the six subjects who become introversive show in every case not only an increase in movement but a decrease in color (Nos. 4, 6, 12, 14, 15, 19).

3) of the seven extratensives who remain extratensive, three remain that way in spite of a color decrease (Nos. 3, 5, 11), while the other four (Nos. 7, 9, 10, 20) increase their M's as well as their ΣC's.

4) it is only in the case of No. 1 and No. 13 that we have a decrease in M and an increase in C; and in the case of No. 17 the M remains at 0 while there is an increase in C.

These results enable us to conclude that from 14 years on there is probably a strong increase on the movement side with boys taken at random.

II. Retested Girls

Encouraged by these first results, we decided to make a similar survey for the girls tested by Mlle Shapiro.

This time the difficulties were of an altogether different sort. Mlle Shapiro had gathered her material in 1932 with 63 girls between the ages of 10 and 13.

1) Could we hope after only two years to find as definite changes as those we found with the boys after five years?

2) Would these changes be the same?

3) Would the difference in ages between the two groups allow us to make worthwhile comparisons?

The results given in Table B indicate the following: For the mental approach

(1) The total number of responses varies between the two tests with a tendency toward an increase. The second median is 36 while the first is 29.

(2) The W's and the D's and Dd's also show marked variation and a definite tendency toward an increase, especially for the Dd's.

The changes in the personality structure are less noticeable. We have no absolute reversal of the M:ΣC formulas as with the boys. We can arrange the girls according to the same groups as the boys.

1) 4 cases (Nos. 1, 3, 7, 10) in which the formula remains the same;
2) 5 cases (Nos. 2, 8, 11, 18, 19) in which M remains the same or increases while the C always decreases. In one case M increases while ΣC remains the same (No. 9);
3) 3 cases (Nos. 4, 14, and 20) show change of formulas and three other cases in which the ΣC remains the same and the number of M decreases (Nos. 6, 15, 16);
4) 3 cases in which the number of M remains the same while C increases (Nos. 5, 13, 17). This leaves only two cases of complete dilation as compared with 7 boys (Nos. 12, 20).

The increase on the extratensive side will be best seen by the analysis of the changes in Erlebnistyp.

1) There are four girls who remain introversive or ambiequal (Nos. 1, 3, 15, 18); only one (No. 18) has an increase in M, from 2 to 3. Nos. 1 and 3 have not changed while No. 15 loses 2 M.

2) The subjects who become introversive or ambiequal are the exception. There are only three cases (Nos. 2, 11, and 19) where we find a decrease in C. Two of them (Nos. 11 and 19) also have an increase in M.

3) The five extratensives who remain extratensive (Nos. 7, 8, 9, 10, 16) change very little.

4) On the other hand, the nine subjects (Nos. 5, 4, 6, 12, 13, 14, 17, 20, 21) who become extratensive have, with the exception of No. 6, an increase in C accompanied in three cases by a decrease in M.

In the next section we shall examine all these results in order to be able to answer the questions we have asked ourselves at the beginning. In the meantime we can already see that the girls have a tendency to become more extratensive while the boys tend to go in the opposite direction.

III. Comparison between Boys and Girls

In comparing the results obtained in the preceding sections, we must take into account the difference in the ages of our subjects. Unfortunately we could not find girls who were the same age as our boys, and who had submitted to the test five years before. This difference, however, is not as great as it might seem at first glance, since it is known that girls develop faster than boys after the age of 12 or thereabouts and that they go through the puberty crisis two or three years earlier. Our 21 girls (12-2 to 14-1) had apparently gone through the puberty crisis and probably approach in maturity our 21 boys of 15-18 years.

Our results have brought confirmation to this hypothesis. We can summarize these results in the following points:

1) Changes in Erlebnistyp

In the first chapter we noticed that 6/7 of the boys from 15 to 18 years old show an introversive tendency, with an increase in M and a decrease in ΣC.

In a small control group of younger boys we find only the decrease of ΣC. Therefore, one must assume that the increase in M becomes manifest after 14 years.

However, our girls from 12 to 14, having passed the puberty crisis, keep their M constant, and increase their Σ C's; the number of extratensive subjects increases from 5 to 11. The following means show these differences clearly:

21 boys in 1929	M = 0.71	ΣC 3.02
" " " 1934	M = 1.43	" " 2.02
21 girls in 1932	M = 1.33	ΣC 2.02
" " " 1934	M = 1.23	" " 2.47

2) Changes in mental approach

We find a slight difference in the number of W's. The median for girls is 5 and for the boys it is 6. For the D's the difference is in the opposite direction. The power of abstraction remains the prerogative of the male sex, practical sense that of the female sex.

3) Changes in content

The differences between the sexes show a tendency to become equalized. For both there is a decrease in the A%, but even more so in the case of the boys, which brings them almost to the same percentage as the girls (median 52 and 50). For the H% the change occurs in the opposite direction: for the boys the H% increases slightly and for the girls it decreases slightly.

IV. Comparisons between All Four Adolescent Groups

In order to be able to give a more careful analysis of all the differences existing between our groups, Table C was prepared. In each category we have underlined the highest or lowest figure and we notice that in almost every instance the girls differ from the three groups of boys. From the table, we can draw various conclusions, as follows:

1) Number of responses. The girls give a greater number of responses but we do not believe that it means that there is a larger variety of associations, for, in general, their results were rather poor, while the high-school boys, in spite of a smaller number of responses, seem to show a greater facility for association.

2) W. In the case of the W responses, the clinic group gives a smaller number than the three others. We wonder whether school and personality difficulties represent an obstacle to the normal development of the power of abstraction.

3) D and Dd. If the D's really indicate practical sense, as Rorschach believed, we have virtually no variation in the case of three groups of boys (med. 15) which might indicate that this practical sense is not influenced by the nature of the groups. Besides, the figures arrived at by Mme Loosli indicate that with the boys the D's do not change with age. As to the girls, they exceed by several points the medians of the boys, and by a few points their own former median. The girls have the higher median for the Dd's also.

4) S. The girls show a greater number of S's. We are inclined not to accept the idea that this may indicate some kind of opposition, especially since S does not appear in the case of the clinic boys among whom we know several who are in revolt against their milieu.

5) M. It seemed interesting to calculate the means of the M's, which were as follows: High school boys, 1.80; clinic boys, 1.66; boys taken at random, 1.43. The comparison between boys and girls has been discussed sufficiently in the previous section.

6) Shading and Color. In the whole affective sphere it is again the girls that give us the highest figures. Their desire for affective adaptation (shading), their adapted affectivity (FC), and even their egocentric affectivity (CF) are fuller and are encountered much more often. That is why their ΣC is the highest (2 at the median instead of 1; 2.47 mean instead of 2.02). The girls have a richer and more varied affective life than the boys between 14 and 18 - which is generally known. On the other hand, their affectivity is more superficial and directed more towards the exterior.

7) F+%. The F% shows the least variation among all four groups. There is a slightly higher percentage for the high-school boys.

8) A% and H%. These percentages show more clearly than the F+% the difference between the high-school boys and the other groups. The high-school boys have the lowest quotients for the A%'s and highest ones for the H%'s. This indicates a less stereotyped thought and, at the same time, a more developed human interest which corresponds logically with their more extensive field of activity.

The explanation for the higher A% shown by the clinic boys is less evident. Let us note also that they show a higher H% than do the boys and girls taken at random. The sum of these two percentages leaves only a small margin for responses of another nature. Their thought is not so rich, or else it is probably canalized into limited directions that come closer to the obsessional type. In fact, it is in this group that we find the greatest number of coarted, coartatives, and ambiequals.

9) P. All the groups show approximately the same quotients in relation to number of popular responses. It is not surprising that the clinic boys show the smallest number because, according to Rorschach, the number of P responses is an indication of adaptation to one's surroundings. These young people, who have personality or school problems, are naturally rebellious and asocial

TABLE A

Twenty-one Boys Taken at Random

a.= First performance - 1929
b.= Second performance - 1934

			Mental Approach					Erlebnestyp					Content					
	Ages	To-tal	W	D	Dd	Do	S	M	Shad-ing	FC	CF	C	F%	A%	H%	P	Re-fused	M:ΣC
1a	9;11	24	5	17	1	-	1	2	1	-	-	-	68	66	16	4	-	2M:0C
1b	15; 3	12	8	3	1	-	-	-	-	1	-	1	70	58	-	4	-	0M:2C
2a	10	21	6	13	2	-	-	1	-	-	-	-	76	43	33	5	-	1M:0C
2b	15; 4	21	5	14	2	-	-	2	-	1	-	-	80	57	19	8	-	2M:½C
3a	10; 3	66	5	36	13	1	11	1	5	-	2	2	69	45	11	2	-	1M:5C
3b	15; 7	58	13	34	4	-	6	1	3	4	1	-	75	24	8	5	-	1M:3C
4a	10; 4	24	3	10	5	-	6	-	-	-	1	-	77	79	3	4	-	0M:1C
4b	15; 8	19	2	8	3	-	6	1	-	-	-	-	89	52	42	5	-	1M:0C
5a	10; 4	43	5	23	8	-	4	-	1	-	1	13	84	32	9	3	-	0M:20½C
5b	15; 8	19	4	14	-	-	1	1	2	1	-	2	73	52	5	4	-	1M:3½C
6a	10; 5	54	9	32	12	1	-	-	-	6	6	2	79	59	4	7	-	0M:12C
6b	15; 9	20	6	12	-	-	2	1	-	2	-	-	97	60	5	8	-	1M:1C
7a	10; 8	26	2	9	12	2	-	-	-	2	1	-	85	61	11	3	-	0M:2C
7b	15;11	37	10	22	2	1	2	1	1	1	3	2	89	56	13	12	-	1M:6½C
8a	10;11	23	12	9	1	-	1	5	-	-	1	-	80	48	43	7	-	5M:1C
8b	16; 2	46	20	22	1	-	3	11	-	4	3	-	82	35	41	5	-	11M:5C
9a	11; 1	27	2	20	3		2	-	-	1	2	1	90	48	0	5	-	0M:4C
9b	16; 5	40	10	20	6		4	2	5	-	5	1	77	27	5	5	-	2M:6½C
10a	11; 3	10	9	1	-	-	-	-	-	-	-	-	66	70	0	4	-	0M:½C
10b	16; 7	14	12	2	-	-	-	1	-	1	2	1	83	57	7	6	-	1M:4C
11a	11; 3	8	2	3	3	-	-	-	-	-	1	-	79	37	12	1	2	0M:1C
11b	16; 7	21	4	17	5	1	-	-	1	1	-	-	78	66	5	5	-	0M:½C
12a	11; 4	11	8	3	-	-	-	-	-	-	1	1	55	27	9	2	1	0M:2½C
12b	16; 8	34	5	17	5	2	4	1	1	-	-	-	76	44	8	5	-	1M:0C
13a	11; 5	46	2	25	8	-	11	1	-	1	1	-	82	57	13	5	-	1M:1½C
13b	16; 8	71	3	28	25	-	15	-	5	4	1	-	76	47	27	7	-	0M:3C
14a	11; 5	30	4	22	2	1	1	1	-	3	-	-	81	53	23	5	-	1M:1½C
14b	16; 8	16	5	9	1	-	-	1	-	-	-	-	76	62	12	7	-	1M:0C
15a	11; 5	18	4	11	1	-	2	-	-	3	1	1	70	55	16	6	-	0M:4C
15b	16; 8	22	5	11	3	-	2	1	1	-	-	-	95	45	13	7	-	1M:0C
16a	11; 7	19	4	11	4	-	-	1	1	-	-	-	76	85	15	4	-	1M:0C
16b	16;10	11	6	4	1	-	-	2	-	-	1	-	75	72	18	5	-	2M:1C
17a	11; 7	23	4	16	2	-	1	-	-	1	-	-	88	78	13	9	-	0M:½C
17b	16;10	55	9	27	9	-	9	-	2	-	2	-	69	46	30	10	-	0M:2C
18a	11; 7	17	8	9	-	-	-	1	-	1	-	-	80	65	24	6	-	1M:½C
18b	16;10	42	7	21	8	-	5	1	6	1	-	-	82	40	40	7	-	1M:½C
19a	12;10	70	11	38	12	-	9	1	-	3	2	-	56	31	14	10	-	1M:3½C
19b	17; 2	42	7	26	5	-	3	1	-	1	-	-	80	64	14	8	-	1M:½C
20a	12; 4	26	4	16	2	1	3	-	-	3	1	-	91	65	-	2	-	0M:2½C
20b	17; 6	36	3	15	11	1	5	1	4	2	2	-	79	50	5½	4	-	1M:3C
21a	12; 5	21	4	17	-	-	-	1	-	-	-	-	87	76	19	7	-	1M:0C
21b	17; 7	13	5	8	-	-	-	1	-	-	-	-	100	93	7	6	-	1M:0C

TABLE B

Twenty-one Girls Taken at Random

a. = First performance - 1932
b. = Second performance - 1934

		Ages	Total	Mental Approach W	D	Dd	Do	S	Erlebnestyp M	Shading	FC	CF	C	Content F%	A%	H%	P	Refused	M:ΣC
1	a.	10	36	9	25	2	-	-	1	1	2	-	-	86	72	8	11	-	1M:1C
	b.	12; 2	53	6	30	15	1	2	1	1	2	-	-	77	69	21	10	-	1M:1C
2	a.	10; 2	28	6	16	2	1	3	1	-	2	1	-	75	40	11	5	-	1M:2C
	b.	12; 4	23	1	12	9	-	1	1	1	-	1	-	85	65	21	7	-	1M:1C
3	a.	10; 6	34	1	20	5	2	6	1	-	-	-	1	75	70	9	9	-	1M:1½C
	b.	12; 4	46	2	27	11	-	6	1	6	2	-	-	75	58	17	6	-	1M:1C
4	a.	10; 6	33	2	25	2	3	1	4	-	2	-	1	65	51	24	2	-	4M:2½C
	b.	12; 5	42	3	24	13	1	-	1	3	2	1	1	88	45	9	8	-	1M:3½C
5	a.	10; 6	32	2	21	2	4	3	-	1	-	-	-	74	47	9	5	-	0M:0C
	b.	12; 7	25	-	13	8	-	4	-	2	2	-	-	66	80	8	2	-	0M:1C
6	a.	10; 6	52	4	34	10	2	2	1	1	2	-	-	79	60	10	12	-	1M:1C
	b.	12; 8	40	2	22	10	1	4	1	1	2	-	-	74	67	7	6	-	0M:1C
7	a.	10; 6	30	-	24	3	2	1	-	3	2	1	2	57	31	7	2	-	0M:5C
	b.	12; 8	66	7	31	17	2	9	-	4	2	1	2	74	27	15	6	-	0M:5C
8	a.	10; 8	55	-	30	8	12	5	-	-	2	-	2	79	60	5	10	-	0M:4C
	b.	12; 8	68	1	28	27	5	7	-	9	1	2	-	78	63	7	4	-	0M:2½C
9	a.	10;10	23	2	19	1	1	-	-	-	1	-	1	81	52	9	6	-	0M:2C
	b.	12; 8	21	9	10	1	-	1	1	3	2	1	-	64	38	9	6	-	1M:2C
10	a.	10;11	34	1	23	4	3	3	-	-	1	2	-	69	47	20	8	-	0M:2½C
	b.	12; 8	40	2	22	13	2	1	-	5	-	3	-	85	50	15	6	-	0M:3C
11	a.	10;11	29	25	3	-	1	-	2	1	1	-	2	52	10	10	3	-	2M:4C
	b.	12; 9	33	18	11	2	-	2	4	1	2	-	-	81	36	15	8	-	4M:1C
12	a.	10;11	22	1	17	3	-	1	-	-	-	-	-	59	86	9	7	-	0M:0C
	b.	12;10	23	3	17	2	1	-	1	-	2	2	-	77	78	4	6	-	1M:3C
13	a.	10;11	32	11	13	5	-	3	3	1	-	1	1	65	62	16	7	-	3M:2½C
	b.	12;10	76	7	38	25	1	5	3	7	4	3	1	75	59	13	10	-	3M:6½C
14	a.	11; 5	18	4	11	1	1	1	2	2	1	-	-	87	44	17	5	2	2M:½C
	b.	13; 2	37	2	21	8	1	5	-	-	2	1	-	87	40	2	3	-	0M:2C
15	a.	11; 6	34	9	23	1	1	-	5	-	-	-	1	75	41	20	6	-	5M:1½C
	b.	13; 6	26	8	13	2	1	2	3	1	1	1	-	90	50	23	4	-	3M:1½C
16	a.	11; 6	21	12	7	-	1	1	2	-	2	1	2	64	38	5	7	-	2M:5C
	b.	13; 7	20	19	1	-	-	-	1	2	-	3	1	61	20	5	3	-	1M:4½C
17	a.	11; 7	7	-	6	-	-	1	-	-	1	-	-	83	71	-	3	4	0M:½C
	b.	13; 6	24	18	6	-	-	-	-	-	2	2	1	68	17	-	1	-	0M:4½C
18	a.	11; 7	28	8	19	1	-	-	2	-	1	-	-	52	46	21	4	-	2M:½C
	b.	13; 7	19	6	12	-	-	1	3	-	-	-	-	62	31	16	2	-	3M:0C
19	a.	11; 6	26	14	12	-	-	-	-	-	4	1	1	75	54	4	7	-	0M:4½C
	b.	13; 8	45	5	32	4	2	-	3	3	1	1	-	88	62	25	11	-	3M:1½C
20	a.	12	27	12	14	-	-	1	4	-	1	1	-	85	51	19	10	-	4M: 1½C
	b.	14; 1	20	10	8	-	-	2	2	-	2	-	1	83	40	15	6	-	2M:2½C
21	a.	12	28	6	15	1	2	4	-	-	1	-	-	73	46	11	6	1	0M:½C
	b.	14; 1	36	4	26	4	-	1	1	3	2	3	-	59	41	11	5	-	1M:4C

TABLE C

Percentiles for All Groups

	Percentile	Boys	Girls	High School Boys	Clinic Boys
Total :	75%	42	45	38	34
	50%	22	36	29	24
	25%	19	23	23	22
W :	75%	9	9	9	7
	50%	6	5	7	4
	25%	5	2	5	2
D :	75%	22	27	21	20
	50%	15	21	15	15
	25%	9	12	11	10
Dd :	75%	5	13	7	5
	50%	3	8	2	4
	25%	1	1	1	3
Do :	75%	0	1	0	2
	50%	0	1	0	1
	25%	0	0	0	0
S :	75%	5	4	3	3
	50%	2	2	1	1
	25%	0	1	0	0
M :	75%	1	2	2	3
	50%	1	1	1	1
	25%	1	0	1	0
Shad- :	75%	2	3	2	1
ing	50%	1	2	0	0
	25%	0	1	0	0
FC :	75%	1	2	1	2
	50%	1	2	0	1
	25%	0	1	0	0
CF :	75%	2	2	1	0
	50%	0	1	0	0
	25%	0	0	0	0
C :	75%	0	1	1	0
	50%	0	0	0	0
	25%	0	0	0	0
ΣC :	75%	3	3½	2½	2½
	50%	1	2	1	1
	25%	0	1	0	0
F+% :	75%	83	85	86	85
	50%	79	77	82	79
	25%	76	68	73	70
A% :	75%	61	63	58	65
	50%	52	50	53	59
	25%	45	38	33	47
H% :	75%	19	16	26	22
	50%	12	13	21	17
	25%	5	7	17	13
P :	75%	7	7	7	6
	50%	6	6	6	5
	25%	5	4	5	4

RORSCHACH REACTIONS UNDER VARIED INSTRUCTIONS

(On the Use of Chi-Squares as a Measure of the Reliability of the Rorschach Psychodiagnostic Technique)

Irving Arthur Fosberg, M. A.

I. General Remarks

Validation of Rorschach's "Psychodiagnostik" has been demonstrated by clinical confirmation but its reliability, as brought out by repetition of the test, has not heretofore received much attention in the literature. The job of demonstrating that two or more Rorschach records give identical personality pictures, where we do not expect any changes in the real personality, is an exceedingly difficult and tedious procedure, but one that must be done sooner or later. A smaller task, and perhaps none the less important, is to demonstrate that the frequencies tabulated for each record are nearly identical.

The usual procedure in testing for reliability is to repeat the examination at given intervals and with alternate forms where such forms exist. In order to make this investigation more striking the writer varied the instructions given before each test. The standard instruction were given the first time (Test A); instruction to "make the best impression" were given the second time (Test B); instruction to "make the worst impression" were given the third time (Test C); and the fourth time the examiner asked the subject to look for various things one at a time (Test D). (Complete directions are given below)

The two cases here dealtwith are only a preliminary report out of a larger experiment involving, at present, over fifty subjects. They were chosen because there were not too many responses to make the protocols bulky; and, as an added attraction, because they are husband and wife.

The protocols were scored and tabulated in the usual way. The tabulations of each set of four were treated statistically in the following manner.

We first proposed to test the null-hypothesis: "All four records do notvary significantly from each other." Stated another way, we can ask: "Are all four records no more than random deviations from a distribution in which the Rorschach categories are in a fixed relationship to one another?" These queries stress the probability function of our statistical treatment. Chi-square is also a test of "goodness of fit,"

so we can also ask: "How closely do the given frequencies fit the theoretical distribution of frequencies in the individual?"

To this end we calculated the Chi-square for all four tests at once (Tables I and II). It is necessary to note in this connection that Rorschach categories are not easily added without running the risk of doing violence to the psychological principles involved. Since the categories are discrete we are at once faced with the statistical problem of low frequencies in given cells. The Chi-square test tends to exaggerate the discrepancy between observed and theoretical data when it is calculated with theoretical frequencies below two. If we threw out all frequencies below two in the two cases here presented, we feel that we would be leaving too many gaps. If we arbitrarily combined categories, we should not be too sure but what we were doing too much violence to the Rorschach technique. In consultation with the editor, Dr. Bruno Klopfer, it was decided to take both risks. Therefore we kept some of the low frequencies in the Chi-square and repeated the calculations on combined categories.

We have in both cases left the W's and D's and combined only d and dd's in one case. All the M's, FM's, and m were added; K and k were added; FK, F and c were added; C' was left untouched; FC, CF, and C were added; H and A were added; Hd and Ad were added; Obj's were left by themselves; and under the heading Mscl. were lumped all the rest of the responses not classifiable as H, A, or Obj. (Tables III and IV). Using the uncombined, we further divided each set of four tests into three parts: the Erfassungsmodi (W, D, d, dd, S); the determinants (M, FM, m, etc.); the subject matter (H, Hd, A, Ad, etc.): Chi-squares were calculated for each part in order to see if there was any difference in their reliability. The results are in Tables V and VI.

The next question we asked was concerning the interrelationships of the four tests. Are A and B more alike than A and C, A and D, etc.? Chi-squares were calculated for these data (Tables VII and VIII).

II. The Technique

The Rorschach test was given four times to each subject with a different set of instructions each time. Following the suggestion of Beck , each set of instructions was typed on a 5X8 card and presented to the subject who read it silently while the examiner read aloud from a duplicate copy. The four sets of directions follow:

1. "You will be given a series of ten cards, one by one. The cards have on them designs, made up out of ink-blots. Look at each card, and tell the examiner what you see on each card, or anything that might be represented there. Look at

each card as long as you like, only be sure to tell the examiner everything that you see on the card as you look at it. When you have finished with a card, give it to the examiner as a sign that you are through with it. If these directions are not clear ask any further questions that you wish. Are you ready?"

2. "You will be given the Rorschach cards again, one by one. As you know that it is a test of your personality, try this time to make the very best impression that you can. Try to make the best impression on, let us say, a group of psychologists who might later examine your responses. Look at each card, and tell the examiner what you see on each card, or anything that might be represented there. Look at each card as long as you like, only be sure to tell the examiner everything that you see on the card as you look at it. When you have finished with a card, give it to the examiner as a sign that you are through with it. Are you ready?"

3. "When you take the Rorschach examination this time, try to make the worst possible impression on the group of psychologists who might later examine your responses. Look at each card as long as you like, only be sure to tell the examiner everything that you see on the card as you look at it. When you have finished with a card, give it to the examiner as a sign that you are through with it. Are you ready?"

4. "When we go through the cards this time, I shall ask you to look for certain things. Do not force yourself to see them, but only tell me if they are in the card you have before you. Are you ready?"

The fourth Rorschach was administered in the following way:

After the instructions had been read, the first card was presented with the instructions, "Show me all the humans in action that you can find." When the subject indicated that he could find no more he was asked, "Now find all the animals in action that you can." After that the following instructions were given, each in its turn:

"Can you find any inanimate things in motion?"
"Do you see anything like clouds, or smoke, or steam?"
"Do you see any X-rays, pictures, or photographs?"
"Do you see any scenery, or vistas?"
"Do you see anything that is formed by the shape of the blot alone?"
"Do you see anything that has texture, that is soft, or smooth?"
"Do you see anything where form and color are combined, where the form is more important than the color?"
"Do you see anything where color and form are combined but where color is more important than form?"
"Do you see anything determined by color alone?"

The time interval between each test and retest depended upon the convenience of the subjects. In the case of the man (F.K.), there were seven days between the first and the second administrations, one day between the second and third, and three between the third and fourth. In the case of the woman (H.K.), the first and second were given with a half hour interval between them, and seven days later the third and fourth were given within a half hour of each other.

A note concerning the reporting of the protocols: The numbers in parentheses preceding the response indicate the number of seconds that preceded the response. The matter in parentheses after a response was inserted by the author as an aid to the reader in locating the position of the response. In the fourth test (D) the determinants in the centered parentheses indicate the question that the examiner asked (i.e., ((FM)) = "Now find all the animals in action that you can."). The responses between that and the next determinant are all those given by the subject even though, as can be seen, some of them cannot be scored by the category under which they were elected.

Where several determinants are noted it means that none but the last elicited a response. (For example, in Case F.K., Test D, Card I: (M), (FM), (m), (K), (k), (FK), (F) means that the subject saw no M, FM, m, K, k, FK, but for F responded; "Shape like a bat.")

III. The Rorschach Protocols and the Tables

CASE F.K. (Male, aged 34)

A. Test under standard conditions — TIME: 10'

CARD

I. Might be a bat. ∨∧ (10)

II. ∨∧ Nothing that I can think of...∧∨ ∧∨ ∧ (60)..Well, two dogs' heads facing each other. In the background there seems to be a door. Not necessarily dogs, might---

III. ∨∧ Might be a design of a modernistic artist of two men, both stooping over an oven or bowing or tipping hats. ∨ Also here in the red seems as if two birds were perched on a branch.

IV. ∨∧∨ (60) Seems as if it were some sort of an animal cut open and laid flat. Like a bear rug.

V. ∨∧∨∧ Nothing, nothing I can see. (120) Seems as if a person was leaning as though reclining.

VI. ∨ (60) This here looks like a crevice (center portion). Two things on the top looking down the abyss (dd top center).

VII. ∨ Well. there are two things here. Elephants' heads, trunk, eyes, nothing that represents body.

VIII. ∨ (10) Well, there are two animals here looking like a Mongoose, both of them.

IX. V><^> Seems to me as if there were forms of sheep's head and over it a shepherd driving the sheep home.
Here in the red, head of man, something protruding from the mouth -- goatee, something hanging from his mouth.

X. V> Well I'll tell you. Cliffs that face each other and two monkeys (in the blue) reaching out and touching each other. Up above, looking down, are other monkeys or human beings (pink above inner blue).
Up here in the green (inner) there seems to be a long line of trees.
In the (inner) yellow, faces of human men, women, or children.

B. Test--to make the best impression TIME: 13'

I. V^V^ (45) Looks like a bat--something with wings, alighted there on ground with wings extended. Body is awfully heavy for a bat.

II. This has the appearance of two dogs, both in begging position. In the (whole upper) red there is an outline of two faces facing each other.
<Head of a horse (outer red), with head extending out. "Spark Plug" (name of a cartoon strip horse).

III. It seems like the drawing of a modernistic artist; of two men half bowing to each other--holding possibly their hats.
VIn the (outer) red--an object on a perch--a parrot or monkey --it has feathers.

IV. Some sort of an animal, split through the center lying on its innards.
Gnomes, with their hair standing out.(Outer side of edge just below middle).

V. At the top, a rabbit's head, the long ears and the way it stands up.
At the sides, a little boy child in reclining seated position.

VI. Has the appearance of a cliff, with apes looking down.
The major portion outlines an animal standing erect. A bear with legs extended. Can't be a bear because it has a goatee. (Side D).
Some sort of winged insect with two prongs extending out. (Upper D).

VII. Two heads of elephants, with trunks extended--bumps on their foreheads.(Same as Test A)
<Some sort of animal that hops.(Whole lower side D).

VIII. An animal going on all fours.

IX. In the red is a man's head--something hangs from the man's head.
Head of a sheep--more in the background. Shepherd is driving them on.(Right green edge).
The face of a man, in outline, walking against the wind.

X. VTwo cliffs facing each other. And large monkeys reaching out.
The monkeys are looking down.
The outline of a face. (Pink edge above center blue)
A door with trees leading up to it.
Two parrots facing each other with something sticking out of their heads. (Outer green)
Animals lying down. (Outer brown)

Q. How did you go about making your "best impression"?
A. I was very exact about what I said.

C. Test--to make the worst impression. TIME: 20'

I. (10) Well, say it looks like a bat.
Looks like somebody pushed ink around.

II. Well, this here looks like something a kid might do with a brush. Resembles two dogs facing each other.
Up in the red, are two faces not very distinct.

III. Well, two men facing each other and bowing, tipping their hats.
∨In the red are two monkeys or parrots on a perch.

IV. <∧∨ This here seems like something, an animal cut in two and placed on the floor. Used in a hunting lodge--a rug, not necessarily fur.

V. Well, this here looks as if they started out to make a winged object, but put a rabbits head on it.
Two boys reclining.

VI. (45)∨ This has the appearance of two things standing back to back, animals.
∧(20) Up on top there is some sort of thing with wings--there's an outline of head and wings.
This here way it could also be taken as a cliff, with two things on top peering down, monkeys or stone-age men.

VII. ∨ Outline of just elephants heads.
<>∧ The other way, an animal hopping.
∨∧∨ > ∧ < (30)

VIII. ∨ >Well, in the red, I see two animals travelling along on all fours. I don't know what kind of an animal.
>∧∨>∨<∧<∨∧<∨<∧>∨>∧∨<∧ (120)

IX. ∨ (20) Outline of a man's face--something coming out of his mouth.
On the inside, are two apes pushing their faces together, like kissing.
One, no two sheep, maybe a flock, anyway one sheep and one in the background.
∧∨<∧∨<∧<∧<(150)
Seems as though there's a funny looking man in the green--it seems as though he's walking and the wind is blowing his hair back, gazing up as if he is expecting something and didn't know what to expect.

X. ∨Cliffs facing each other. Two monkeys with outstretched hands, and two monkeys on top looking at them.
∨In the background, a door with trees leading up to it.
Two faces with a yellow background.
>∧Two animals lying down. Not lying down but down on their stomachs. (Outer green)
Heads of two parrots facing each other. Feathers sticking out of their heads. (Inner gray)

Q. How did you go about making your "worst impression"?
A. I was vague about my reasons.

D. Test by inquiry TIME: 55'

I. (M), (FM), (m), (K), (k), (FK), (F),
∧<∨∧ Shape like a bat.
Head of a teddy-bear. (Small "d" on right edge of wing)
∨Face of a child--seems rounded. (Right side above wing)
Profile of a man's face. (left side above wing)
Dog's head. (In upper left D)
(Fc), (C')

II. (M), (FM)
∨< Two dogs in a begging position, just the heads.
(m), (K), (k), (FK), (F)
Form of a person's head. (upper red)
(c)
>A man's face because of the shading. (Outer left edge)

III. (M)
Two men bowing.
(FM)
Monkey or parrot on a perch not securely fixed on what he's grasping.
(m), (K), (k), (FK)
Two trees off in the distance.

IV. (M)
(30) Profiles of things that may be human far off in the distance possibly seated or all in a line. (Hair of gnome in A.)
(FM), (m)
I see nothing that would represent motion
(F)
Whole thing is an animal split in the center-- furry or hairy because of the shading.
A man with a very long nose and hair standing up. One of the dwarfs with gray hair.
(c), (C')

V. (M)
A boy in a reclining position with leg extended.
(FM)
A rabbit's head because of the way the ears stand up.
(m), (K), (k), (FK), (F), (c), (C')

VI. (M)
∨Monkeys or cave-men gazing down at something.
A cliff because of the shading.
Bust of something, or might be a man standing with arms folded.
(FM), (m), (K), (k), (FK), (F)
Head of an insect with wings. Furry around head and body.

VII. (M), (FM)
<Some sort of furry animal hopping on hind legs. The fur is the irregular outline.
Elephants head with trunk curled up and lifted.
(m), (K), (k), (FK), (F)
∨Profile of a person, pug nosed.
Could be looking off at cliffs, cloud in the background.

VIII. (M), (FM)
An animal walking on all fours. Shaded part may be thick hair.
(m)
Ice hanging down. It came by degrees.
(K), (k), (FK), (F), (c), (FC), (CF), (C)

IX. (M)
Seems to be a sheep and a shepherd driving them on, and a field which has been severely beaten by the sun. A stiff wind is blowing into his face and his hair and garments blow back.
(FM), (m), (K), (FK), (F)
Heads of two men. (Outer orange)
Heads of two apes pressing faces together. (Inner pink)
(c), (C'), (FC), (CF), (C)

X. (M)
Two objects that might be human, probably are not, on cliffs looking down at two large monkeys reaching out and touching each other.
(FM)
Two parrots heads looking at each other and screaming at each other. (Inner gray)
Cow lying down. (Outer green)
(m), (K), (k), (FK)
A doorway off in the distance, trees or bushes leading up to it.
(F)
A woman's face. (Dark spot in inner yellow)

Scoring of Test A

I.	W	F	A
II.	W	FM	Ad
	d	FK	Arch
III.	W	M	H
	D	FM	A
IV.	W	cF	A obj
V.	D	M	H
VI.	D	FK	Nat
	dd	M	(Hd)
VII.	D	F	Ad
VIII.	D	FM	A
IX.	D	FC	Ad
	D	M	H
	D	F	Hd
X.	D	FK	Nat
	D	FM	A
	dd	M	AHd
	D	Fc,FK	Nat
	d	F	Hd

Scoring of Test B.

I.	W	FM	A
II.	D	FM	Ad
	D	F	Hd
	D	F	Ad
III.	W	M	(H)
	D	FM	A
IV.	W	c,F	A obj
	dd	F	(Hd)
V.	d	F	Ad
	D	M	H
VI.	D	FK	Nat
	dd	M	Hd
	D	FM	A
	D	F	A
VII.	D	F	Ad
	D	F	A
VIII.	D	FM	A
IX.	D	F	Hd
	D	F	Ad
	D	M	H
	De	F,m	Hd
X.	D	FK	Nat
	D	FM	A
	d	FM	A
	de	F	Hd

Scoring of Test C

I.	W	F	A
II.	D	FM	Ad
	D	F	Hd
III.	W	M	H
	D	FM	A
IV.	W	c,F	A obj.
V.	W	F	A
	D	M	H
VI.	D	FM,c	A
	D	F	A
	(D	FK	Nat.
	(dd	M	Hd
VII.	D	F	Ad
	D	FM	A
VIII.	D	FM,c	A
IX.	D	F	Hd
	D	FM	Ad
	D	Fc,C'	Ad
	D	M,m	H
X.	(D	FK	Nat
	(D	FM	A
	(d	FM	A
	D	FC,FK	Nat.
	d	F,C	Hd
	D	F	A
	D	F	A

Scoring of Test D

I.	W	F	A
	d	F	Ad
	d	F	Hd
	d	F	Hd
	d	F	Ad
II.	D	FM	Ad
	d	F,c	Hd
III.	W	M,FC'	H
	D	FM	A
	D	FK	Nat.
IV.	d	M	H
	W	cF	A
	D	Fm,C'	Hd
V.	D	M,m	H
	D	F	Ad
VI.	d	M	(H)
	D	FK	Nat.
	d	M	H
	D	Fc	A
VII.	D	FM	A
	D	FM	Ad
	de	F	Hd
	D	FK,K	Nat.
VIII.	D	FM,c	A
	D	cF,c	Obj.
IX.	(D	F	Ad
	(D	M,m	H
	(D	CF	Nat.
	D	F	Hd
	D	FM	Ad
X.	(dd	M	(Hd)
	(D	FK	Nat.
	(D	FM	A
	D	FM	Ad
	D	FM	A
	D	FC,FK	Nat.
	d	F	Hd

Tabulation - Case F.K. - Male, Aged 34

Dates given:

1. Aug. 19, 1938 (A-Standard)
2. Aug. 26, 1938 (B-Best)
3. Aug. 27, 1938 (C-Worst)
4. Aug. 30, 1938 (D-Forced)

	A	B	C	D
R	19	28	26	37
W	4	3	4	3
D	11	20	19	23
d	2	3	2	10
dd	2	2	1	1
S	0	0	0	0
M	5	4	4	7
FM	4	8	8	9
m	0	0+1	0+1	1+2
K	0	0	0	0+1
k	0	0	0	0
FK	3+1	2+1	2+1	4
F	4	12+1	9	11
c	1	1	2+2	2+4
C'	0	0	0+1	0+1
FC	2	1	1	1
CF	0	0	0	2
C	0	0	0+1	0
H	3	3	3	6
Hd	3+1	6	4	8
A	4	9	11	8
Ad	4	6	4	8
Obj.	0	0	0	1
Nat.	3	3	3	6
A obj.	0	1	1	0
Pl.	0	0	0	0

CASE H.K. (Female, aged 27)

A. Test under standard conditions TIME: 30' Aug. 19, 1938

CARD

I. Looks like a bat or an eagle at first impression.
(30) A caterpillar.

II. Two cubs, seemingly dancing, red lanterns above.

III. Man equins, boiling something in an iron pot. Stewing something.
(25)

IV. A spider.
Some sort of insect with a lot of antlers - or feelers.

V. A butterfly.

VI. √ Can I turn it around any way?
A fur pelt - as a matter of fact two fur pelts sewn together.
Bottom end looks like paw and leg of a fox.

VII. √ (15) Two dancing dolls with a flimsy veil suspended over them.

VIII. (15) Two pink rats on either end.
V∧ (15) Bottom part looks like a lovely tinted stone.
V∧ (15) Blue and grey. Might be top of cavern that was iced and that might be the icicles coming down.
IX. The colors clash terribly in the first place.
V∧V (45) It might be interpreted modernistically as clouds, trees, and trunks or in the place of trees, foliage.
X. A nice assortment of colors.
V (45) On top of picture we have outline of molar with great big roots.
(15) The blue color on either side of the picture might be crabs if they were pink in color.
(15) The formation of pink reminds me of icicles. Greyish brownish shaped things. Look very much like coons.
All in all it's not a pretty blot.

B. Test to make the best impression TIME: 25' Aug. 19, 1938

I. In this case instead of giving first hand impressions, I'm going to think about it. Is that what you wish?
(105) Authentically the center part of the picture is a caterpillar.
As far as the rest of the blot is concerned, it's superfluous.

II. (45) A study in black and red.
III. Gee, I guess I could say a study in black and red for all of them.
(30) Scrooge and his twin brother stewing their Christmas dinner. Pot looks as if you could see right through it and there wasn't much in it.
(30) I don't know why they have the fire above the pot instead of below. Looks like they are red hot coals.
IV. (15) That reminds me of a hairy insect. I don't know why. Lives under the water and has fungi attached to it.
V. A butterfly after it has been pressed. Wings have been pinned down on paper and is encased in glass. It might look as though some chemical process has been used which has made this once beautiful butterfly devoid of color. (Now mind you, I'm trying to impress the professors!)
VI. Ah, the fur pelts of last time. What shall we make them this time?
This card isn't very impressive.
(120) I've seen a frozen fish that took on the shading of the center of this blot.
VII. V∧ (60) Two marionettes.
(60) Humorous, not tragic.
Seems to be resting on a soft material such as cotton wadding.

VIII. <(160) Cavern of semi-precious opalescent stones.
Inhabited only by wild animals.
IX. V> V<
(150) Three colors thrown on a piece of paper.
X <VI see one-two-three butterflies in the distance - they are yellow.
Two cobwebs are blue in color.
(60) Red might be some berry or flower which hides the tree.
Grey is trunk of tree - color blue are blue-birds.

C. Test to make the worst impression TIME: 10' Aug. 26, 1938

I. It's silly, I could say for every one of them that it doesn't mean anything.
A kid making funny faces with something on her head.
II. V/\ >/\(90) Two animals dancing.
III. (15) Two men stirring something in a pot.
IV. An imaginary dragon.
V. A butterfly.
VI. V(60) A pelt of an animal, skin side.
VII. (30) Two figures in a puppet show.
VIII. Two colored rats.
Semi-precious stones.
IX. V /\ (30) Modernistic color design.
X. V /\ A maypole.

D. Test - By inquiry TIME: 20' Aug. 26, 1938

I. Figure holding hands to head.
A bat flying.
Top of mountain. Uneven part is grey gravel.
X-ray because of shading.
Wings.
Mittens - grasping.
II. Two humans strutting.
Two animals strutting.
III. Two humans cooking in a pot.
Two fish swimming.
X-ray of man's diaphragm.
Lower part of a leg and high-heeled shoe.
Child's hair ribbon.
IV. Dragon leaping into the air.
A cloud formation.
Cob web grey.
V. Butterfly flying.
VI. Water, foaming, breaking.
VII. Human hands putting on a puppet show - using finger to make actions of two dolls.
Humans dancing, skirts flimsy grey.
Cloud.

VIII. Rats climbing.
Wave and cloud above.
Cave, comes to a point.
IX. Clouds.
Foliage.
Cobwebby.
X. Centipedes chasing something.
Butterfly.
Birds with lots of yellow sitting in a tree.
Blue-birds - wings interlocked touch one another.
A wish-bone.

Scoring of Test A

I.	1) W	FM,C'	A		I.	D	F	A
	2) D	F	A					
II.	3) W	FM	A		II.	W	Cdisc.	Obj.
	D	CF	Obj.					
III.	W	M	(H)		III.	W	M	H
						D	FK	Obj.
						D	CF	Fire
IV.	W	Fc	A		IV.	W	Fc	A
						D	Fc	A
V.	W	F	A		V.	W	F,m	A
VI.	W	Fc	Aobj.		VI.	D	Fc	Aobj.
	D	F	Ad					
VII.	W	M,c	(Hd)		VII.	W	M	(H)
						D	Fc	Obj.
VIII.	D	FC,FM	A		VIII.	D)W	F	A
	D	CF,c	Obj.			D)	CF,c	Obj.
	D	C,F,c	Nat.					
IX.	---------C----------							
	D	K	Nat.		IX.	W	Cdis.	Obj.
	D	FC	Nat.					
	D	FC	Nat.					
X.	---------C----------							
	D	F	Anat.		X.	D	FM,CF	A
	D	F	A			D	Fm	Obj.
	D	Fc	Obj.			D	CF	Bot.
	D	FC	A			D	FM,FC	A

Scoring of Test B

Scoring of Test C

I.	D	F	H
II.	W	FM	A
III.	W	M	H
	D	F	Obj.
IV.	W	F	(A)
V.	W	F	A
VI.	W	Fc	Aobj.
VII.	D	Fm	(Hd)
VIII.	D	FC	A
	D	CF,c	Obj.
IX.	W	C	Obj.
X.	D	FC	Obj.

Scoring of Test D

I.	D	M	H
	W	FM	A
	D	FK,C'	Nat.
	D	Fk	Obj.
	D	F	Ad
	d	Fm	Obj.
II.	D	M	H
	D	FM	A
III.	W	M	H
	D	FM	A
	D	Fk,C'	Obj.
	D	F	Hd
	D	FC	Obj.
IV.	W	FM	(A)
	D	K	Cloud
	D	FcC'	Obj.
V.	W	FM	A
VI.	D	K,m	Water
VII.	D	M	(Hd)
	W	M, c,C'	H
	D	K	Cloud
VIII.	D	FC,FM	A
	D	CF,K	Water
	D	CF,K	Cloud
	DS	FK	Nat.
IX.	D	K,CF	Cloud
	D	CF	Bot.
	dd	F	Obj.
X.	D	FM	A
	D	FM	A
	D	FM,FC	A
	D	FM,FC	A
	D	F	Aobj.

Tabulation - Case H.K. - Female, Aged 27

Dates given:

1. Aug. 19, 1938 (A-Standard)
2. Aug. 19, 1938 (B-Best)
3. Aug. 26, 1938 (C-Worst)
4. Aug. 26, 1938 (D-Forced)

	A	B	C	D
R	18	14	11	33
W	7	6+1	6	5
D	11+2	8+4	5+1	25
d	0	0	0	1
dd	0	0	0	1
S	0	0	0	1
M	2	2	1	5
FM	2+1	2	1	9+1
m	0	1+1	1	1+1
K	1	0	0	4+2
k	0	0	0	2
FK	0	0+1	0	2
F	5+1	3	3+1	4
c	3+3	2+3	1+1	1+1
C'	0+1	0	0	0+4
FC	3+1	0+1	2	2+1
CF	1+1	2+2	1	3+1
C	1	2	1	0
H	1	2	2	4
Hd	1	0	1	2
A	8	6+1	4	10
Ad	1	0	0	1
Obj.	2+1	4+2	3+1	6
(Nat.	3+1	0	0	2)
(Miscl.	2	2+1	1	8)

TABLE I - Case F.K., Male, Age 34

Uncombined Categories from which Chi-Square Was Calculated for All Four Tests

	A	B	C	D	Total
W	4	3	4	3	14
D	11	20	19	23	73
d	2	3	2	10	17
M	5	4	4	7	20
FM	4	8	8	9	29
FK	3	2	2	4	11
F	4	12	9	11	36
H	3	3	3	6	15
Hd	3	6	4	8	21
A	4	9	11	8	32
Ad	4	6	4	8	22
Nat.	3	3	3	6	15
Tot.	50	79	73	103	303

$X^2 = 19.766$

$P = .950$

TABLE II - Case H.K., Female, 27

Uncombined Categories from which Chi-Square Was Calculated for All Four Tests

	A	B	C	D	Total
W	7	6	6	5	24
D	11	8	5	25	49
M	2	2	1	5	10
FM	2	2	1	9	14
F	5	3	3	4	15
c	3	2	1	1	7
FC	3	0	2	2	7
CF	1	2	1	3	7
H	1	2	2	4	9
A	8	6	4	10	28
Obj.	2	4	3	6	15
Misc.	5	2	1	8	18
Tot.	50	39	30	84	203

$X^2 = 17.019$

$P = .975$

Combined Categories from Which Chi-Square was Calculated for All Four Tests

Case F.K., Male, Aged 34

TABLE III

	A	B	C	D	Total
W	4	3	4	3	14
D	11	20	19	23	73
d+dd	4	5	3	11	23
∑M	9	12	12	16	49
∑K	0	0	0	0	
∑F	8	15	13	17	53
C'	0	0	0	0	
∑C	2	1	1	3	
∑(H+A)	7	12	14	14	47
∑(Hd+Ad)	7	12	8	16	43
Obj.	0	0	0	1	
Misc.	3	4	4	6	17
Total	53	83	77	106	319

$X^2 = 7.578$

$P = .995$

Case H.K., Female, Aged 27

TABLE IV

	A	B	C	D	Total
W	7	6	6	5	24
D	11	8	5	25	49
∑M	4	5	3	15	27
∑F	8	5	4	7	24
∑C	5	4	4	5	18
∑(H+A)	9	8	6	14	37
∑(Hd+Ad)	2	0	1	3	6
Obj.	2	4	3	6	15
Misc.	5	2	1	10	18
Total	51	42	32	87	212

$X^2 = 17.534$

$P = .814$

Tri-Partite X^2 and Probabilities Based Upon Uncombined Categories for All Four Tests

Case F.K. TABLE V

	X^2	P
Erfassungsmodi (Mental Approach)	7.374	.312
Determinants	4.505	.850
Content	4.736	.930

Case H.K. TABLE VI

	X^2	P
Erfassungsmodi (Mental Approach)	7.079	.075
Determinants	17.282	.901
Content	5.725	.750

Interrelationships Based Upon Combined Categories

Case F.K. TABLE VII

	X^2	P
A & B	1.795	.948
A & C	2.206	.948
A & D	2.446	.920
B & C	2.889	.899
B & D	1.476	.980
C & D	4.997	.675

Case H.K. TABLE VIII

	X^2	P
A & B	2.716	.901
A & C	3.540	.825
A & D	8.269	.350
B & C	.796	.994
B & D	6.823	.450
C & D	10.943	.150

TABLE IX

Summary of the Probabilities

		Case F.K.	Case H.K.
Uncombined Categories (all 4 tests)		.950	.975
Combined " " " "		.995	.814
Tri-partite for all 4 tests:			
	Erf.(Mental app.)	.312	.075
	Det.	.850	.901
	Cont.	.930	.750
Interrelations:			
	A & B	.948	.901
	A & C	.948	.825
	A & D	.920	.825
	B & C	.899	.994
	B & D	.980	.450
	C & D	.675	.150

IV. Quantitative Results

In using the Chi-square method we consider as our "statistical population," an individual personality with its interrelated traits. Our Rorschach tests give us samplings of characteristic reactions, also intrinsically interrelated with each other. The probability in both combined and uncombined cases (See Table IX) indicates that the four sets of data (from the four tests) really come from the same population (in this case an individual) and that if we - so to speak - lower a bucket into the personality four times, we should fish up by sheer chance four sets that would show a variation of as much or more, in nine times out of ten. Only once in the ten would we have to reject the results because they did not jibe with one another.

Considering the same material from the "goodness of fit" standpoint, these same indexes indicate that the frequencies observed match closely to the theoretical frequencies we should expect if all four tests are to give the same personality picture.

No matter whether the subjects try to make a good, bad, or indifferent impression, and even when each of the possible Rorschach factors are pointed out to them, the psychogram still remains recognizably like the standardly administered Rorschach.

When we split the Rorschach categories into three parts, taking the Erfassungsmodi (Mental approach), the Determinants, and the Contents separately, we find in both cases that the Erfassungsmodi are most easily influenced and the other two least influenced by a change in directions. The probabilities again show that all four tests give the same personality picture.

There is only one probability that is in the doubtful range (Erfassungsmodi, Mrs. H.K., .075) which will be more fully discussed below.

It will also be noted that the responses increased in both cases in test D. Mr. F.K's responses for test D are 37 (A,19; B, 28; C, 26). Mrs. H.K.'s responses for test D are 33 (A, 28; B, 14; C, 11). We can safely say that it is due almost entirely to the repeated urging on the part of the examiner, forcing the subject's attention to factors he might not otherwise consider. We have noted this trend also in other (unreported) cases the writer is working upon. Rorschach workers will realize why these special directions must change the Erfassungsmodi since here we prove their contention that individuals are not capable of producing more W's; and that when put under pressure, all that can be increased is the more insignificant details (D and d). This stability of the W under all types of pressure is quite striking.

From the above discussion, we can now account for the markedly low probabilities of those tests computed with test D (Table IX, Interrelation A & B, A & C, B & C, as compared with A & D, B & D, C & D). We can further localize this point by referring to the probabilities of the Erfassungsmodi in the tri-partite table (Table IX, Erf. .312 and .075).

This necessary distortion is the only one we get. We further note in this connection that in no case do the probabilities drop below the critical point of .05 where statisticians reject the hypothesis that the two (or more) distributions are from the same population (or individual, in this case). All but one probability are clearly above the critical point of .10, where statisticians accept the hypothesis. The single exception is the probability .075 for the Erfassungsmodi. This is in the doubtful area (.05 to .10) where statisticians neither reject nor accept the hypothesis, but seek further evidence. In view of the very high probabilities elsewhere, and of the psychological principles in the meaning of W, we have well accounted for this single case.

Turning our attention to the time factor, we conclude that time does not influence the responses unduly since in case H.K. the responses decrease from test A to B, given within a half-hour of each other, while they increase from C to D, also given within a half-hour. In case F.K., there were seven days between A and B but the responses increased by nine, and dropped again by two between B and C (where a single day intervened). There was an increase by 11 between C and D (a three-day interval). We further note from the Interrelations tables that time does not seem to influence the general picture, since the general probability for all interrelations does not decrease as the time interval between them increases. Considering only tests A to C and ignoring test D because of the Erfassungsmodi's influence upon P, as above discussed, we see that A and B and A and C for case F.K. have the same probability, .948. In case H.K. the greatest time elapsed was between tests B and C, yet they have the highest probability, .994.

V. Qualitative Results

Without attempting a complete personality study as would be warranted in a case study, we here point out only the most important personality details that come out insofar as they are relevant to this study.

In the person of Mr. F.K. we have an individual with a favorable balance between spontaneity and control except when he tries to make his best impression - then control increases (increase in F and D). This trend also comes out in attempting to make a bad impression. He has a high introversial trend (persistently high number of M). Though normally there is good proportion in the indications of inner life, when under pressure of test situations B and C, the productions of his inner life become more primitive (M < FM). His disregard for C is persistent. He is at his best in regard to external emotional adjustments under standard conditions, and becomes more withdrawn under pressure; again "best" and "worst" are alike. Not markedly influenced by varied instructions is his high capacity for introspection (FK), and the high degree of differentiation of his conscious mental activities (F.K. + c to F). This differentiation is only impaired by a too rigid control in trying to make his "best impression." This effect is enhanced by a stereotyping effect of the control (increase in A). Again in situations B and C alike. Basically there is very little variation in all four situations, aside from the highlights noted above, and most interesting is the high degree of similarity of results produced by tests B and C.

Mrs. H.K. has more than average intelligence; she is an individual with "good common sense" (D, H + A, Hd + Ad) and with an optimal balance between control and spontaneity (F%). She has a rich and varied personality (Content) with somewhat extravertial trends (M to C), but with sufficient development of the inner life (M) and of sensitivity (c) to balance her vivid emotional responsiveness. Under normal circumstances she has sufficient elasticity and stability but under very strong pressure of social ambitiousness she may become affected. In making her "best possible impression" she becomes affected (Study in black and red," B, II), when trying to be "bad" she succeeds only in being negativistic (See remark at start of test C) but in neither case influencing the total personality gestalt.

We conclude, then, that no matter what Mrs. H.K's or Mr.F.K's subjective intentions were, they could not escape their basic self without leaving - in the brief changes they could effect - traces of their origin.

Final Conclusions

1) The Rorschach test does not lend itself to manipulations based upon the subjective personal estimation of character, good, bad, or indifferent (as can so easily be done in the more popular paper and pencil tests) but faithfully traces the more permanent picture.

2) If people would make the most favorable impression, let them "be natural."

A FURTHER RORSCHACH STUDY OF MR. A*

Bruno Klopfer, Ph. D.

Mr. A went through the performance of the Rorschach test three times: January, 1936, January, 1937, and March, 1938. The first two Rorschach records are reproduced and analyzed in detail in the Rorschach Research Exchange, Vol. I, No. 3, p. 77. Here it will be sufficient to present the record of the last performance only, which gives as characteristic a picture of Mr. A's reactions as do the two previous records, and to compare the results of the three performances.

Rorschach Record: March, 1938

The following record contains only about a tenth part of what Mr. A actually spoke during the performance in the course of twenty minutes. The whole performance was covered with mainly two kinds of remarks: a) very aggressive remarks about the examiner and other people, and b) pseudo-logical jokes (play with words) associated with his responses. However, Mr. A never showed any real resistance when called back to his task. In salvaging the actual responses out of the mass of conversation (interspersed with German and French remarks), it was impossible to make sure how he arrived at his responses, as Mr. A would speak of something else afterwards. The actual responses had to be dragged out of him by continuous repetition of the instructions: tell what it might be, what it could be like.

Card I. It could be a butterfly.

Card II. (Spontaneously) That's made from two colored ink. It could be a scuttle of coal.

Card III. It looks quite pretty. That's made in the same way from two colored ink. It could be two men. They could talk to each other and dish out beer - from this scuttle of coal.

Card IV. That's dark ink smeared over. It could be the framework of the ribs. (Points to the middle section as spine and to the side parts as ribs. Pointing to his own breast, "I know I have ribs on both sides.")

---

* Cf. "Rorschach Study of a Bilateral Lobectomy Case," Rorschach Research Exchange, Vol. I, No. 3, pp. 77-88.

Card V. A butterfly. I could say more about it. (The examiner asks, "What?") I could say when I sent a butterfly out it couldn't bring me back a glass of half and half.

Card VI. That's funny. A Persian rug.

Card VII. That could be a pretzel and it could be a map because it's shaped like one. (In further inquiry he emphasizes that there is no water.)

Card VIII. That's hard. That's lousy. It could be three butterflies and two 'possums. (The butterflies are the grey, the blue, and the pink-orange parts.)

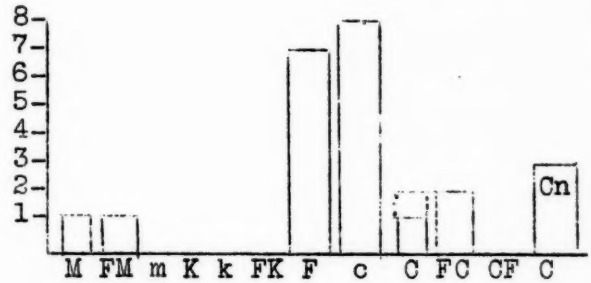
Card IX. That guy had a mass of ink. That's a blossoming of a flower - tulips. (In inquiry he explains that the pink part is four bulbs, a middle section is a stem, the green side parts are leaves, and he adds, "I know it's blue, but I call it green. He didn't have enough ink. The orange parts are leaves which are nearer to the sun, and, therefore, they have taken on the color of the sun.") Could be an outline of a map.

Card X. (Turns it upside down and says, "Does it have to be that way?" Told that it could be any way he wants it, he says, "If it would be where I want it to, it wouldn't be on the table.") That could be a schuetzen-putzer. It could be the framework of something cut. (He spells "c-u-t" and continues "cuttie" and goes on playing with the sound. Asked what it is cut from, he says, "The body." Asked what part, he points to the face and then to the lower part of the body. Then he explains the grey center part is the stem and then he points to the side blue parts. Asked what they could be, he says, "Crabs." Asked whether they belong to the framework, he says, "Naturally, they are blood with something in between.")

Tabulations of the Scoring of the Three Rorschach Records*

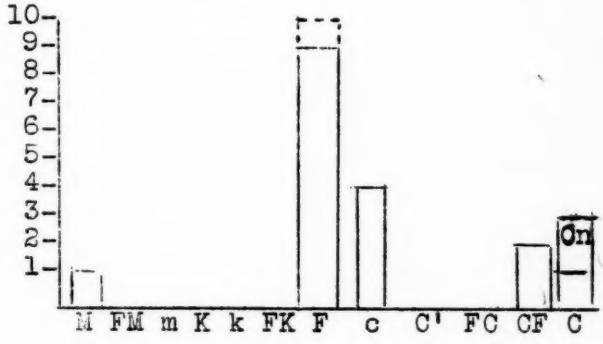
First Record: 23 Responses

W	16	M	1	H	1
D	5	FM	1(-)	Hd	0
d	1	m	0	A	5
dd	0	K	0	Ad	2
S	1	k	0	Aobj	4
		FK	0	Obj	4
		F	7	Geo	1
		c	8	Pl	1
		C'	1+1	Ink	1
		FC	2	Smudge	2
		CF	0	Color	2
		C	0		
		Cn	3		



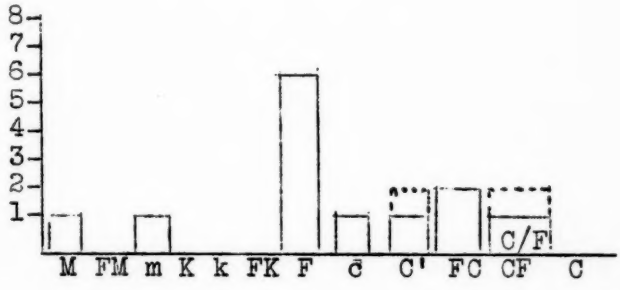
Second Record: 19 Responses

W	16	M	1	H	1
D	3+1	FM	0	Hd	0
d	0	m	0	A	5
dd	0	K	0	Ad	1
S	0+1	k	0	Aobj	5
		FK	0	Obj	1
		F	9+1	Geo	2
		c	4	At	1+1
		C'	0	Sex	1
		FC	0	Color	2
		CF	2		
		C	1		
		Cn	2		



Third Record: 14 Responses

W	12+1	M	1	H	1
D	2+1	FM	0	Hd	0
d	0	m	1	A	4
dd	0	K	0	Ad	0
S	0	k	0	Aobj	0
		FK	0	Obj	3+1
		F	6(2-)	Geo	2
		c	1	At	2
		C'	1+1	Pl	1
		FC	2	Schuetzen	
		CF	0+1	-putzer	1
		C/F	1		
		C	0		
		?	1		



---

* There are some differences in the tabulations of the earlier records due to a uniform rescoring.

Interpretation

Mental Approach

Rorschach signs: The total number of responses decreases from twenty-three in the first record, to nineteen in the second, and fourteen in the third. The decrease is based, first, on a greater neglect of obvious parts of the blots. While six different details are used in the first record, only three are used in the second, distributed over three different cards, and in the third record, Mr. A gives his attention only to the most obvious details in Card VIII. Also there is less use of details in explaining his interpretation of whole cards.

Psychological significance: According to general experience, and supported by other evidence in Mr. A's Rorschach, this change indicates an increase in negligence toward everyday problems.

Rorschach signs: The change in the Whole responses is qualitative rather than quantitative. They become more careless and slovenly, e.g., Card II, without red, was seen as "skin of two bears" in the first record, "rug" in the second, and "scuttle of coal" in the third. Card IV, in the first two performances the usual animal skin, becomes "the framework of the ribs" in the third. Card VII changes from the fairly common "skin" and "map" into a "pretzel," which is justified only vaguely by the crude outline of the blot.

Psychological significance: This change indicates that the increase in negligence is characteristic of his general mental activity. This point is also borne out by some silly perseveration of contents, e.g., the "scuttle of coal" in Card II out of which the men in Card III are drinking beer.

Personality Structure

Rorschach signs: The comparison of the three graphs shows the most marked change in the relationship between form and texture responses. The ratio is 7:8 in the first record, 9:4 in the second, and 6:1 in the third.

Psychological significance: The texture responses most likely did not represent any differentiated and refined form of sensitivity. However, they showed a strong desire for contact with his surroundings, even if this contact was limited to the level of physical contact and off-color jokes. The desire for contact seems to disappear more and more, showing an impoverishment in his relationship to his surroundings similar to that which existed from the beginning in his inner life.

Rorschach signs: Another significant change in the graph is the relationship between FC and C. The previous point gives a clue for an explanation of this change, which could easily be misconstrued as an improvement in emotional adjustment. The obvious excitement created by the colored blots in the first performance dies down somewhat in the second, where he substitutes for color denomination a sexual interpretation of the lower red spot in Card II and an anatomical response in Card VIII. In the third performance the color descriptions and denominations disappear altogether and are replaced by casual remarks about the making of the blots, or by an actual use of the color for interpretative purposes. He tries, more or less successfully, to combine form and color qualities of the blots, and only the last card, the one with the most color, causes confusion and the only neologism in the last record.

Psychological significance: The banality and slovenliness in his use of color indicate that even here the decrease in excitement created by the color stimulus is due to an impoverishment in his relations to his surroundings, rather than to a real adjustment. We may call it an adjustment on a lower level.

FURTHER RESULTS OF RETESTING MR. A

Gladys Tallman, M. A.

General Observations

This patient was seen four times and would have been seen further had this been possible. Although his wife apparently was cooperative, the fact that she asked each time how many more times he should be brought up gave the examiner the feeling that her cooperation was rather on the surface. The patient himself always insisted that he would not return, but each time he came back he seemed affable and friendly, apparently having forgotten his threats.

Stanford-Binet

On the old revision of this material the patient scores fifteen years, no months, intelligence quotient .94. The test was done in completion. Although this is eleven months lower than the score attained on the same material in 1932, the difference in quotient is not more than one might expect on re-examination. There is some variability between the two tests. Previously his basal age was at year XII and now it is at year XIV. At the average adult level his successes were previously on the interpretation of fables, the enclosed box problems, and the repetition of six digits reversed. This last success, however, was done on a different series of digits, that given in the

Herring Revision. At the present time he is successful with the giving of differences between abstract words and with the enclosed box problems. His fables are not creditable mainly because he refused to be serious in his interpretation of them. At the present time his upper limit is the average adult level. Previously he had been successful with the eight digits in given order and seven digits reversed. One would expect fluctuation in the results of tests on this patient because of the difficulty in testing him and the quick changes which he shows in mood. It should be said that his present rating is based on rather strict scoring.

Stanford-Binet Form L

Tests from year XII through the superior adult level III of this series were also given the patient. Most of this material was new to him. His failures below the XIVth year level occurred on tests where reasoning and concentration was necessary. On this series he had one failure at the XII year level. This occurred on the response to the messenger boy picture to which he gave a rather inferior interpretation. No score can be attained on the material because it is incomplete.

Pintner-Paterson

This series of performance tests which had been given to the patient in 1932 was repeated. Although he seemed much more cooperative on this material than the examiner could remember that he ever had been and in the end rates higher by six months than he previously did, some of the individual test scores are lower than those previously attained. For instance, on the previous test he had completed the Feature Profile in 4' 45", a performance which is the standard for ten year old children. At the present time he seemed to have no idea of what he was doing. The profile pieces he arranged from top to bottom as eye, mouth, and nose. He arranged the ear correctly outside the recess for the ear, but was unable to place it correctly within the board.

On the Mare and Foal Test he had completed the task in 34" with three errors. At the present time he needed 51" and made two errors. He showed a gain on the Five-Figure Board for he now did it in 1' 56" with two errors. Previously he had needed 4' 3" and made ten errors. The Casuist Board he completed in 1' 22" without error. Previously he had needed 4' 30" and had made fifteen errors. He refused to do the picture completion test as well as the smaller boards of this series. As mentioned above, his present score is nine years, against a median mental age of eight years, six months on the previous test.

RORSCHACH STATISTICS

Part II*: Normal Children

Helen H. Davidson, M. A., and Bruno Klopfer, Ph. D.

Introduction

In addition to the introductory remarks to Part I* of "Rorschach Statistics," it should be emphasized again that some of the shortcomings in comparing the Rorschach data of different investigators are particularly conspicuous in children's Rorschachs. These are especially obvious in the following:

1. Total Responses (R)

In the scoring of adult Rorschachs, there are divergencies in the handling of composite concepts, as, for instance, the response to Card VIII - "animals climbing over rocks." This is sometimes scored as one response, sometimes as two. These differences in scoring are not as significant in the case of adults as they are for children, since children frequently are not able to express themselves clearly. Thus, children may mention separate parts, as heads, legs, and hands, while in reality they see the whole figure and the naming of the separate parts is just their way of describing it. Some children, however, may really see the separate parts. Different ways of handling such problems explain in part the gross divergencies in the number of total responses. Only the universal use of a careful inquiry could make these data more comparable.

2. Location of Response (W, D, etc.) and F+%

The difficulty in determining the locale of the response and the calculation of F+% has been mentioned in Part I. The greater lack of spontaneous explanation among children, or an unskilled inquiry, which may make a child feel that he is being criticized, tends to increase these difficulties. When the five responses listed under Location do not equal the total number of responses, it is due either to inaccuracies in the original papers or to the rounding off of the numbers. (All numbers were rounded off to two significant figures.)

3. Movement Responses (M)

Several authors complain that since clear explanations are not readily elicited from children, it becomes difficult to determine an M response. This seems to be sufficient explanation for the fact that some investigators seem to assume that there are no M responses given by their group of children.

*Rorschach Statistics - Part I: Mentally Retarded, Normal, and Superior Adults, Rorschach Res. Exch., 1938, 2, 164-169.

4. Shading Responses

The lack of differentiation of shading responses makes these data insignificant.

5. Color Responses (FC, CF, C)

One of the authors does not indicate what kind of color reactions are subsumed under C. Otherwise, the color responses belong to the more interesting data in the tabulation. But, again, differences in the procedure and material of the several investigators make a thoroughgoing comparison doubtful.

6. Content of Response

The A% and H% are the least complicated factors in regard to scoring and tabulation and consequently give the most uniform results.

TABLE I: Rorschach Responses of Children (Homogeneous Age Groups)

Ref. No.	Group (b-boys, g-girls)	No. of Cases	Age	Total Res.	LOCATION OF RESPONSE						DETERMINANTS OF RESPONSE					CONTENT OF RESPONSE			
					W	D	Dd	Do	S	F+%	M	Shading	FC	CF	C	A%	H%	C%	P%
6*	American b&g	16	5-6	19	7.9	10	1.0		0.6		0.8	0.7	1.3	1.7	1.3	43			
2#	German g.		6	17	2.7	10	1.3	1.0	1.4	60	0.0	1.4	1.2	0.7	0.5	45		3	
2#	German g.		7	15	3.2	10	0.5	1.4	1.1	45	0.0	0.6	1.5	0.3	0.9	43		5	
5	Engl.b&		7		2.7						0.6					62			
5	Engl.g.	40	7	26	2.5	22			1.2		x1.0	0.2	0.4	0.7	0.1	54	12		18
6*	American b&g	16	7-8	15	8.3	6	0.4		0.4		1.0	1.6	0.9	1.5	0.3	53			
2#	German g.		8	28	2.0	19	3.6	2.0	1.4	55	0.8	1.4	1.7	2.1	0.4	29		9	
5	Engl.b&g.		8		2.6						1.2					49			
2#	German g.		9	26	1.6	12	4.4	2.6	1.3	62	0.5	2.3	2.9	1.0	0.4	55		3	
5	Engl.b&g.		9		5.3						1.9					59			
10	Germ.b&g.	6	10		5.6					73	1.3							3	
2#	German g.		10	26	3.6	15	1.8	1.8	1.4	63	0.25	1.8	1.8	0.8	0.5	62		2	
5	Engl.b&g.		10		5.0						1.7					56			
8	Zurich b	40	10	42	3.9	22	12.0	2.1	1.8	73	1.2		1.6	1.8	1.5	[illegible]		21	9
7	Geneva b	21	10	25	5.0	16	3.0	0.0	1.0	79	0.0	0.0	1.0	0.0	0.0	58	14		16
10	Germ.b&g.	16	11		5.0					85	2.6							4	
2#	German g.		11	31	3.4	17	5.6	3.7	1.8	72	1.3	1.6	2.2	1.1	0.6	64		9	
5	Engl.b&g.		11		4.4						1.8					51			
8	Zurich b.	40	11	39	3.8	19	13.0	1.2	2.0	74	1.2		0.7	0.6	0.3	56		27	13
7	Geneva b.	21	11	19	4.0	11	2.0	0.0	1.0	80	0.0	0.0	1.0	1.0	0.0	57	12		21
10	Germ.b&g.	14	12		4.7					85	2.2							4	
2#	German g.		12	37	4.8	21	6.3	3.7	2.6	71	0.8	1.1	2.2	1.9	0.4	53		7	
8	Zurich b.	40	12	46	3.4	22	15.0	2.3	3.0	78	1.0		1.6	0.8	0.2	53		26	10
7	Geneva b.	21	12	19	6.0	10	2.0	0.0	1.0	75	0.0	0.0	0.0	1.0	0.0	57	7		22
10	Germ.b&g.	26	13		4.7					88	2.4							5	
2#	Germ.g.		13	28	4.8	14	6.4	2.0	0.3	78	0.8	1.0	3.9	0.8	0.8	54		9	
5	Engl. g.	50	13		6.3	29			1.2		x3.7	0.4	0.3	0.4	0.0	55	16	20	21
5&12**	Engl.b&g.	154	13	28	6.0	22			0.7		x2.3	0.3	0.3	0.3	0.0	56		11	25
10	Germ.b&g.	14	14		4.8					90	1.7							6	
10	Germ.b&g.	11	15		5.0					89	1.7							9	
5&12**	Engl.b&g.	30	15	22	7.3	14			0.3		x2.3	0.3	0.3	0.2	0.0	53		16	27

x-M+FM

*Klopfer, B., The Application of the Rorschach Method for the Diagnosis of Early Personality Development, Rorschach Research Exchange, this issue.

#These figures were estimated from the percentage graphs given in Dubitscher's paper. Except for the R and M scores which were given in absolute numbers, the percentages were converted to absolute figures for the purposes of comparison.

**These results from Kerr (5) - quoted in No. 12 combining published and unpublished data.

TABLE II: Rorschach Responses of Children (Heterogeneous Age Groups

Ref. No.	Group (b-boys, g-girls)	No. of Cases	Age	Total Res.	LOCATION OF RESPONSE W	D	Dd	Do	S	F+%	DETERMINANTS OF RESPONSE M	Shading	FC	CF	C	CONTENT OF RESPONSE A%	H%	O%	P%
2*	German g.		6-10	22	2.4	13	2.5	1.8	1.3	56	0.3	1.4	1.8	1.0	0.6	43		5	
3**	German b.& g.	44	6-10	22	4.3	16	2.0	1.0	1.5	80	0.0		1.0	1.0	0.5	51			
2&12#	German g.	50	6-14	27	3.5	16	4.0	2.3	2.0	65	0.8	1.4	2.0	1.0	0.5	55		7	
5	Engl. b.	50	9-12	31	5.0	25			0.6		x1.9	0.2	0.3	0.7	0.1	56	15	20	23
5	Engl. g.	50	9-12	36	4.6	31			0.9		x1.8	0.5	0.4	0.5	0.0	53	16	20	21
5&12//	English b.&g.	194	9-12	30	5.2	24			0.7		x1.7	0.4	0.4	0.4	0.0	58		13	23
7	Geneva b.	63	10-12	23	5.0	15	2.0	0.0	1.0	80	0.0	0.0	1.0	1.0	0.0	57	11		21
8&13@	Zurich b.	120	10-12	42	3.7	21	13.5	1.9	2.3	75	1.1		1.3	1.1	0.7	55		25	11
9	Andalusian g.	50	10-13	14	3.6	9	0.5	0.3	0.3	78	0.9	0.4	0.8	0.3	0.0		14	4	34
9	Andal.b.	50	10-13	19	5.0	12	1.6	0.2	0.4	74	1.2	0.4	0.9	0.4	0.0		11	5	33
2*	German g.		10-13	31	4.2	17	5.0	2.8	1.5	71	0.8	1.4	2.5	1.2	0.6	58		7	
4	American b&g.	300	12-16	27	6.8	14	2.0	1.0	1.7	89	2.6			ΣC -	1.3	54		7	26
1***	Zurich b.	127	13-15	33	5.9	18	6.8	0.8	1.0	72	1.2		1.3	0.3	0.1	50			
1***	Zurich g.	82	13-15	35	5.6	20	7.5	1.1	1.0	70	1.5		1.8	0.6	0.1	42			
1***	Zurich b&g	209	13-15	34	5.8	18	7.1	0.9	1.0	71	1.3		1.5	0.4	0.1	47			

x = M+FM

* Computed (regardless of the number of cases in each group) from estimated figures given in Table I for each age group.

** "Rorschach records of children from six to ten," by L. Guggenheim - to be published in the Rorschach Research Exchange.

\# All of these figures except for the Do and shading responses were reported by Vernon (Bibliography No. 12).

// Results from Kerr (5) reported in No. 12, combining published and unpublished data.

@ Reported in No. 13 and checked with Löpfe's original figures.

*** Reported in No. 13.

TABLE III

A. R, M, and C scores for American White and Negro Boys and Girls (Bibliography No. 11)

	WHITE BOYS & GIRLS					NEGRO BOYS & GIRLS					MT. WHITE BOYS & GIRLS			
	CA 4-5	CA 5-6	CA 6-7	CA 7-8	CA 10-11	CA 4-5	CA 5-6	CA 6-7	CA 7-8	CA Av.9	CA 5-6	CA 6-7	CA 7-8	CA 9-11
No. of Cases	316	731	430	85	93	62	500	708	472	326	15	117	143	450
*R	46	55	56	57	58	46	58	57	58	64	54	65	68	78
M	1.5	1.7	1.8	1.4	1.2	1.2	2.0	1.8	2.0	2.0	0.9	1.1	1.2	1.3
C	2.3	2.4	2.9	2.9	2.5	2.8	3.0	3.2	3.0	2.6	3.0	2.6	2.7	2.5

*Total Res.

Note: These figures are all combined averages. They were computed from averages obtained on separate groups of boys and girls as given by Sunne. The N's in each group were approximately the same and therefore disregarded in obtaining these averages.

B. M averages for Riga Boys and Girls (Bibliog. No. 10)

	6 yr.	7 yr.	8 yr.	9 yr.	10 yr.	11 yr.	12 yr.	13 yr.	6-13 yrs.
No. of Cases	3	8	14	16	19	15	18	15	108
M	2.0	2.1	2.6	3.0	3.3	2.9	2.4	3.1	2.8

Note: In computing the averages of M's in this group, only the records of children who gave at least one M were used. Those records which contained no M were excluded from this computation.

Summary

In regard to the total number of responses, the only general result which can be formulated is that there seems to be a definite low around the seven year level (with one exception). This is preceded by a somewhat higher figure around five years.* For the older groups, the data vary strongly, due to the factors mentioned in the introduction. Among older children, there is one group whose average total response is even lower than for the seven year olds. Omitting this group, the range is from 19 to 46 with an average of about 30, which is below the average for adult groups.

A consistently increasing trend (with the exception of the group analyzed in the following paper) is seen in the number of W responses. The average for the two groups of six to ten year olds is 3.6; for the nine to thirteen year olds, it is 4.6, and for the oldest groups (twelve to sixteen), it is 6.4 (from Table II). The psychological significance of this fact, however, cannot be determined unless the quality of these W responses were also known.

The divergencies in the determination of the different kinds of detail responses preclude any sensible analysis of these data.

For all groups the values for S are at a generally low level. Only three of the groups show an average which exceeds two.

The unsettled question of the computation of F+% again precludes a closer evaluation of the data as given in these tables. Nevertheless, in Table II, it can be seen that the averages range from 65 to 80 with only one of the youngest group below this range and one of the oldest group above this range.

In comparing the data for M, it is necessary to omit those groups where M and FM are not differentiated. The average of the two youngest groups listed in Table II is about 0.15 with a range of from 0.0 to 0.3; the average for the comparable groups between 10 and 13 years is 0.8 with a range from 0.0 to 1.2; for the oldest groups (12 to 16), the average is 2.1 with a range from 1.2 to 2.6. Thus, the increasing trend for M is apparent. One further generalization may be made, that several authors have observed a slight decrease in the number of M responses in some children between 10 and 13 years of age who gave M responses before. This seems to be an effect of the "biological compulsion neurosis" foreshadowing approaching puberty.

However, the data presented in Table I and IIIB indicate that there is an enormous variation in regard to the absolute number of movement answers within the different age groups. This variation is probably due not only to differences in scoring but also to actual differences among the subjects themselves. Even Rorschach notes, in his original paper, that M varies greatly with different population groups.

---

*This point will be further elaborated in paper No. 6 of the bibliography.

Among the data for the color responses, a decreasing trend in number of pure C responses is obvious. Using the same groups as before, the approximate average for the youngest group is 0.5; for the middle group, it is 0.2, and for the oldest group, it is 0.1. For the rest of the data on color responses, the balance between FC and CF is of interest. The average of the two youngest groups shows a FC to CF balance of 1.3 to 1.0; for the groups between nine and thirteen years, this balance is 0.7 to 0.3; and for the oldest groups, the FC to CF balance is 1.5 to 0.4. This indicates, then, that the FC to CF balance which indicates the degree of emotional adjustment seems to be most precarious immediately before and during puberty.*

In regard to the content of the responses, both the A% and the H% show a rather narrow range. For the combined groups in Table II, the range for the A% is from 43 to 53 and for the H%, it is from 11 to 16. These, therefore, seem to be stable quantities for these age groups. The O% and F% are not readily analyzable because of the different standards used by the several investigators.

Bibliography

1. Behn-Eschenburg, H., Psychische Schuleruntersuchungen mit dem Formdeutversuch, Bern: Huber, 1931
2. Dubitscher, F., Die Persönlichkeitsentwicklung des Schulkindes im Rorschachschen Formendeutversuch, Zsch. f. Kinderforsch., 1933, 41, 485-494
3. Guggenheim, L., Rorschach Records of Children from Six to Ten - to be published
4. Hertz, M. R., Rorschach norms for an adolescent age group, Child Develop., 1935, 6, 69-78
5. Kerr, M., The Rorschach test applied to children., Brit. J. Psychol., 1934, 25, 170-185
6. Klopfer, B., The application of the Rorschach method for the diagnosis of early personality development. To appear in the next issue of the Rorschach Research Exchange.
7. Loosli-Usteri, M., Le test de Rorschach appliqué à différents groupes d'enfants de 10-13 ans, Arch. de psychol., 1929, 22, 51-106
8. Löpfe, A., Über Rorschachsche Formdeutversuche mit 10-13 jährigen Knaben, Zsch. f. angew. psychol., 1925, 26, 202-253
9. Maza, A., Studies by the Rorschach method with normal Spanish children (in Spanish), Arch. de neurbiol., 1932,12,693-738
10. Schneider, E., Psychodiagnostisches Praktikum für Psychologen und Pädagogen, 1936, Leipzig, Barth. Pp. 1-132
11. Sunne, D., Rorschach test norms of young children, Child Devel., 1937, 7, 304-313
12. Vernon, P. E., Recent work on the Rorschach test, J.Ment. Sci., 1935, 81, 894-920
13. Vernon, P. E., The Rorschach ink-blot test, Part II, Brit. J. Med. Psychol., 1933, 13, 179-200

---

*An analysis of this balance for the early age groups will be discussed in paper No. 6.